

Alessandro Vittorio PAPADOPOULOS

PERSONAL DATA

PLACE OF BIRTH: Verona (VR), Italy
DATE OF BIRTH: October 21st, 1986
ADDRESS: Herkulesgatan 3B, SE 224 57, Lund, Sweden
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CURRENT

today | **Postdoctoral Researcher**
JAN 2014 | *Lund University, Department of Automatic Control, Lund, Sweden*
Supervisor: Prof. Karl-Erik Årzén
Research topic: I am involved in the Cloud Control project. We take a control theoretic approach to a range of cloud management problems, aiming to transform today's static and energy consuming cloud data centers into self-managed, dynamic, and dependable infrastructures, constantly delivering expected quality of service with acceptable operation costs and carbon footprint for large-scale services with varying capacity demands. Such data centers will form the backbone of the digitalized society by providing unparalleled information storage and processing capabilities.

today | **Member**
JAN 2014 | *Lund Center for Control of Complex Engineering Systems (LCCC), Lund, Sweden*

EDUCATION

DEC 2013 | **Ph.D. in Information Technology – Systems and Control**
JAN 2011 | *Politecnico di Milano, Milano, Italy*
Thesis title: Automatic Model Simplification for Continuous and Discontinuous Systems | Advisor: Prof. Alberto Leva

SEP 2012 | **Visiting Ph.D. Student**
JUN 2012 | *Lund University, Department of Automatic Control, Lund, Sweden*
Supervisor: Prof. Johan Åkesson

OCT 2011 | **Professional Engineer License in Information Engineering**
Politecnico di Milano, Milano, Italy

OCT 2010 | **Master of Science in Computer Engineering**
OCT 2008 | *Politecnico di Milano, Milano, Italy*
Evaluation: Summa cum Laude, 110L/110; GPA: 28.98/30 **Degree Date:** 22/10/2010
Thesis title: Advanced control techniques for resource management in computing systems.

JUL 2008 | **Bachelor of Science in Computer Engineering**
SEP 2005 | *Politecnico di Milano, Milano, Italy*
Evaluation: 108/110; GPA: 27.59/30 **Degree Date:** 23/07/2008
Thesis title: Model parameterisation for the automatic tuning of industrial regulators: the proposal of a unitary approach.

TEACHING EXPERIENCE

- FALL 2014 | **Teacher** – Jointly with Prof. Karl-Erik Årzén
Real-Time Systems (Realtidssystem) – 10 ECTS
Lund University (98 students, 34h)
- FALL 2013 | **Teaching Assistant**
Fundamentals of Automatic Control (for Bioengineering) – 7 ECTS
Prof. Maria Prandini, Politecnico di Milano (168 students, 20h)
- SPRING 2013 | **Teaching Assistant**
Fundamentals of Automatic Control (for Aerospace Engineers) – 8 ECTS
Prof. Luca Bascetta, Politecnico di Milano (187 students, 26h)
- FALL 2012 | **Teaching Assistant**
Fundamentals of Automatic Control (for Bioengineering) – 7 ECTS
Prof. Maria Prandini, Politecnico di Milano (136 students, 26h)
- SPRING 2012 | **Teaching Assistant**
Fundamentals of Automatic Control (for Aerospace Engineers) – 8 ECTS
Prof. Luca Bascetta, Politecnico di Milano (169 students, 28h)
- FALL 2011 | **Teaching Assistant**
Fundamentals of Automatic Control (for Bioengineering) – 7 ECTS
Prof. Maria Prandini, Politecnico di Milano (130 students, 20h)
- SPRING 2011 | **Teaching Assistant**
Fundamentals of Automatic Control (for Aerospace Engineers) – 8 ECTS
Prof. Luca Bascetta, Politecnico di Milano (160 students, 12h)

INVITED TALKS, SEMINARS, PARTICIPATIONS

- APR 2016 | **Invited seminar**, at the NII Shonan Meeting entitled “Controlled Adaptation of Self-adaptive Systems (CASaS)”, Shonan Village Center (SVC), Japan, invited by Prof. Paola Inverardi, Dr. Nicolás D’Ippolito, Dr. Kenji Tei
- JAN 2016 | **Invited seminar**: “Control and Performance Evaluation of Computing Systems in Presence of Uncertainty”, at INRIA Grenoble Rhône-Alpes, France, invited by Prof. Eric Rutten
- DEC 2015 | **Invited seminar**: “Control-based Design of Computing Systems in Presence of Uncertainty”, at MDH, Västerås, Sweden, invited by Prof. Hans A. Hansson
- SEP 2014 | **Invited seminar**, at the GI-Dagstuhl Seminar n. 14382 on “Control Theory meets Software Engineering”, Dagstuhl, Germany, invited by Prof. Antonio Filieri and Prof. Martina Maggio
- AUG 2014 | **Invited talk**: “Adopting the Scenario Theory for Performance Evaluation in Cloud Applications”, at the 5th Cloud Control Workshop, Mölle, Sweden
- FEB 2014 | **Invited talk**: “Modelling Aspects of Computing Systems: from clouds to earth and back again”, at the 3rd Cloud Control Workshop, Hemavan, Sweden
- NOV 2013 | **Invited seminar**: “Model reduction of switched affine systems: a method based on balanced truncation and randomized optimization”, at ETH, Zürich, Switzerland, invited by Prof. John Lygeros and Dr. Kostas Margellos

GRANTS & HONOURS

- DEC 2013 | Awarded with the European Doctorate certificate
- JAN 2011–DEC 2013 | Ph.D. Scholarship funded by the Italian Government – \$55000

SERVICES TO THE RESEARCH COMMUNITY

Participation in program and organizing committee of conferences

- 2016 IEEE ISPA: 14th IEEE International Symposium on Parallel and Distributed Processing with Applications – *Program Committee member*
- 2016 HSCC: 19th International Conference on Hybrid Systems Computation and Control – *Repeatability Evaluation Committee member*
- 2015 CTSE: 1st International Workshop on Control Theory for Software Engineering – *Program Committee member*
- 2015 IEEE ISPA: 13th IEEE International Symposium on Parallel and Distributed Processing with Applications – *Program Committee member*
- 2015 ECRTS: Euromicro Conference on Real-Time Systems – *Local Chair*
- 2014 6th Cloud Control Workshop – *Social Chair*

Session chair or co-chair at International Conferences

- Session “Control Applications II” – CDC 2015
- Main track session – CTSE 2015
- Main track session – Feedback Computing 2015
- Session “Modelling of Human Performance” – IFAC World Congress 2014
- Session “Emerging Control Applications” – CDC 2013

Reviewer of International Journals

- ACM Transactions on Embedded Computing Systems (TECS)
- Applied Mathematics and Computation (AMC)
- Automatica
- IEEE Transactions on Network and Service Management (TNSM)
- IEEE Transactions on Parallel and Distributed Systems (TPDS)
- IEEE Transactions on Services Computing (TSC)

Reviewer of International Conferences

- European Control Conference (ECC)
- IEEE 54th Annual Conference on Decision and Control (CDC)
- IEEE International Conference on Cloud and Autonomic Computing (ICCAAC)
- IEEE International Conference on Embedded and Real-Time Computing Systems and Applications (RTCSA)
- IEEE International Conference on Robotics and Automation (ICRA)
- IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS)
- IFAC Symposium on Advances in Control Education (ACE)
- IFAC International Conference of Mathematical Modelling (MATHMOD)
- IFAC Conference on Advances in PID Control (PID)
- IFAC World Congress
- Mediterranean Conference on Control and Automation (MED)

LANGUAGES

ITALIAN: Mothertongue
GREEK: Mothertongue, bilingual
ENGLISH: Fluent – TOEFL iBT 81/120 – C1 (CEFR) (October 2007)
FRENCH: Basic Knowledge
SWEDISH: Basic Knowledge – Level 1 Certificate 82.5/100 (June 2014)

PUBLICATIONS

Citations overview

- Google Scholar: Number of citations: 263, h-index: 9, i10-index: 9, g-index: 15
- Citation profile: <http://scholar.google.it/citations?user=3T1ES08AAAAJ&hl=en>

BOOKS AND BOOK CHAPTERS

- [B3] A. V. Papadopoulos and M. Prandini. *Fondamenti di Automatica: Esercizi*. (In press, In Italian). Pearson Italia, 2016.
- [B2] M. Maggio, T. Abdelzaher, L. Esterle, H. Giese, J. O. Kephart, O. J. Mengshoel, A. V. Papadopoulos, A. Robertsson, and K. Wolter. “Self-Adaptation of Individual Entities”. In: *Self-Aware Computing Systems (SACS)*. (submitted under review). 2015.
- [B1] A. Leva, M. Maggio, A. V. Papadopoulos, and F. Terraneo. *Control-based operating system design*. Control Engineering Series. IET, 2013. DOI: [10.1049/PBCE089E](https://doi.org/10.1049/PBCE089E).

International Journals

- [J12] A. V. Papadopoulos, L. Bascetta, and G. Ferretti. “Generation of Human Walking Paths”. In: *Autonomous Robots* 40.1 (2016), pp. 59–75. DOI: [10.1007/s10514-015-9443-2](https://doi.org/10.1007/s10514-015-9443-2).
- [J11] A. Leva, F. Terraneo, L. Rinaldi, A. V. Papadopoulos, and M. Maggio. “High-Precision Low-Power Wireless Nodes’ Synchronization via Decentralized Control”. In: *IEEE Transactions on Control Systems Technology* (2015). (accepted), pp. 1–15. DOI: [10.1109/TCST.2015.2483559](https://doi.org/10.1109/TCST.2015.2483559).
- [J10] A. V. Papadopoulos and A. Leva. “A model partitioning method based on dynamic decoupling for the efficient simulation of multibody systems”. In: *Multibody System Dynamics* 34.2 (2015), pp. 163–190. DOI: [10.1007/s11044-014-9415-x](https://doi.org/10.1007/s11044-014-9415-x).
- [J9] A. V. Papadopoulos, M. Maggio, A. Leva, and E. Bini. “Hard Real-Time Guarantees in Feedback-based Resource Reservations”. In: *Real-Time Systems* 51.3 (2015), pp. 221–246. DOI: [10.1007/s11241-015-9224-1](https://doi.org/10.1007/s11241-015-9224-1).
- [J8] A. V. Papadopoulos, M. Maggio, F. Terraneo, and A. Leva. “A Dynamic Modelling Framework for Control-based Computing System Design”. In: *Mathematical and Computer Modelling of Dynamical Systems* 21.3 (2015). (invited paper), pp. 251–271. DOI: [10.1080/13873954.2014.942785](https://doi.org/10.1080/13873954.2014.942785).
- [J7] A. V. Papadopoulos and A. Leva. “Automating efficiency-targeted approximations in modelling and simulation tools: dynamic decoupling and mixed-mode integration”. In: *SIMULATION: Transactions of The Society for Modeling and Simulation International* 90.10 (2014), pp. 1158–1176. DOI: [10.1177/0037549714547296](https://doi.org/10.1177/0037549714547296).
- [J6] F. Dercole, M. De Carli, F. Della Rossa, and A. V. Papadopoulos. “Overpunishing is not necessary to fix cooperation in voluntary public goods games”. In: *Journal of Theoretical Biology* 326.0 (2013), pp. 70–81. DOI: [10.1016/j.jtbi.2012.11.034](https://doi.org/10.1016/j.jtbi.2012.11.034).
- [J5] A. Leva and A. V. Papadopoulos. “Tuning of event-based industrial controllers with simple stability guarantees”. In: *Journal of Process Control* 23.9 (2013), pp. 1251–1260. DOI: [10.1016/j.jprocont.2013.07.010](https://doi.org/10.1016/j.jprocont.2013.07.010).
- [J4] M. Maggio, A. V. Papadopoulos, and A. Leva. “On the Use of Feedback Control in the Design of Computing System Components”. In: *Asian Journal of Control* 15.1 (2013). (invited paper), pp. 31–40. DOI: [10.1002/asjc.509](https://doi.org/10.1002/asjc.509).

- [J3] M. Maggio, H. Hoffmann, A. V. Papadopoulos, J. Panerati, M. D. Santambrogio, A. Agarwal, and A. Leva. “Comparison of Decision Making Strategies for Self-Optimization in Autonomic Computing Systems”. In: *ACM Transactions on Autonomous and Adaptive Systems* 7.4 (2012), 36:1–36:32. DOI: [10.1145/2382570.2382572](https://doi.org/10.1145/2382570.2382572).
- [J2] A. V. Papadopoulos, M. Maggio, S. Negro, and A. Leva. “General control-theoretical framework for online resource allocation in computing systems”. In: *IET Control Theory & Applications* 6.11 (2012), pp. 1594–1602. DOI: [10.1049/iet-cta.2011.0632](https://doi.org/10.1049/iet-cta.2011.0632).
- [J1] A. Leva, S. Negro, and A. V. Papadopoulos. “PI/PID autotuning with contextual model parametrisation”. In: *Journal of Process Control* 20.4 (2010), pp. 452–463. DOI: [10.1016/j.jprocont.2010.01.005](https://doi.org/10.1016/j.jprocont.2010.01.005).

International Conferences

- [C30] K. Angelopoulos, A. V. Papadopoulos, and J. Mylopoulos. “Adaptive Predictive Control for Self-Adaptive Software Systems”. In: *Proceedings of the 1st International Workshop on Control Theory for Software Engineering (co-located with the 10th Joint Meeting of the European Software Engineering Conference and the ACM SIGSOFT Symposium on the Foundations of Software Engineering)*. CTSE 2015. Bergamo, Italy: ACM, 2015, pp. 17–21. DOI: [10.1145/2804337.2804340](https://doi.org/10.1145/2804337.2804340).
- [C29] D. Desmeurs, C. Klein, A. V. Papadopoulos, and J. Tordsson. “Event-Driven Application Brownout: Reconciling High Utilization and Low Tail Response Times”. In: *2015 IEEE International Conference on Cloud and Autonomic Computing (ICCAC)*. Cambridge, MA, USA, 2015, pp. 1–12. DOI: [10.1109/ICCAC.2015.25](https://doi.org/10.1109/ICCAC.2015.25).
- [C28] A. Filieri, M. Maggio, K. Angelopoulos, N. D’Ippolito, I. Gerostathopoulos, A. B. Hempel, H. Hoffmann, P. Jamshidi, E. Kalyvianaki, C. Klein, F. Krikava, S. Misailovic, A. V. Papadopoulos, S. Ray, A. M. Sharifloo, S. Shevtsov, M. Ujma, and T. Vogel. “Software Engineering Meets Control Theory”. In: *10th International Symposium on Software Engineering for Adaptive and Self-Managing Systems*. SEAMS 15. Florence, Italy, 2015, pp. 71–82. DOI: [10.1109/SEAMS.2015.12](https://doi.org/10.1109/SEAMS.2015.12).
- [C27] A. Leva and A. V. Papadopoulos. “Disturbance rejection in autotuners: an assessment method and a rule proposal”. In: *American Control Conference (ACC)*. Chicago, IL, USA, 2015, pp. 2876–2881. DOI: [10.1109/ACC.2015.7171171](https://doi.org/10.1109/ACC.2015.7171171).
- [C26] A. V. Papadopoulos. “Design and Performance Guarantees in Cloud Computing: Challenges and Opportunities”. In: *10th International Workshop on Feedback Computing*. Seattle, WA, USA, 2015.
- [C25] A. V. Papadopoulos, R. Carone, M. Maggio, and A. Leva. “A control-theoretical approach to thread scheduling for multicore processors”. In: *Control Applications (CCA), 2015 IEEE Conference on*. Sydney, Australia: IEEE, 2015, pp. 1103–1110. DOI: [10.1109/CCA.2015.7320760](https://doi.org/10.1109/CCA.2015.7320760).
- [C24] A. V. Papadopoulos and M. Maggio. “Virtual Machine Migration in Cloud Infrastructures: Problem Formalization and Policies Proposal”. In: *Decision and Control (CDC), 2015 IEEE 54th Annual Conference on*. Osaka, Japan: IEEE, 2015, pp. 6698–6705.
- [C23] F. Terraneo, A. Leva, S. Seva, M. Maggio, and A. V. Papadopoulos. “Reverse Flooding: exploiting radio interference for efficient propagation delay compensation in WSN clock synchronization”. In: *Proceedings of the 36th IEEE Real-Time Systems Symposium*. RTSS. San Antonio, TX, USA, 2015, pp. 175–184. DOI: [10.1109/RTSS.2015.24](https://doi.org/10.1109/RTSS.2015.24).
- [C22] J. Dürango, M. Dellkrantz, M. Maggio, C. Klein, A. V. Papadopoulos, F. Hernández-Rodríguez, E. Elmroth, and K.-E. Årzén. “Control-theoretical load-balancing for cloud applications with brownout”. In: *Decision and Control (CDC), 2014 IEEE 53rd Annual Conference on*. Los Angeles, CA, USA: IEEE, 2014, pp. 5320–5327. DOI: [10.1109/CDC.2014.7040221](https://doi.org/10.1109/CDC.2014.7040221).
- [C21] C. Klein, A. V. Papadopoulos, M. Dellkrantz, J. Dürango, M. Maggio, K.-E. Årzén, F. Hernández-Rodríguez, and E. Elmroth. “Improving Cloud Service Resilience using Brownout-Aware Load-Balancing”. In: *Reliable Distributed Systems (SRDS), 2014 IEEE 33rd International Symposium on*. Nara, Japan: IEEE, 2014, pp. 31–40. DOI: [10.1109/SRDS.2014.14](https://doi.org/10.1109/SRDS.2014.14).
- [C20] A. Leva, D. Mastrandrea, M. Bonvini, and A. V. Papadopoulos. “Object-Oriented Modelling and Simulation of Air Flow in Data Centres Based on a Quasi-3D Approach for Energy Optimisation”. In: *Utility and Cloud Computing (UCC), 2014 IEEE/ACM 7th International Conference on*. London, UK: IEEE, 2014, pp. 554–559. DOI: [10.1109/UCC.2014.85](https://doi.org/10.1109/UCC.2014.85).

- [C19] A. V. Papadopoulos, L. Bascetta, and G. Ferretti. "A Comparative Evaluation of Human Motion Planning Policies". In: *Proceedings of the 19th IFAC World Congress*. Vol. 19. Cape Town, South Africa: IFAC, 2014, pp. 12299–12304. DOI: [10.3182/20140824-6-ZA-1003.01898](https://doi.org/10.3182/20140824-6-ZA-1003.01898).
- [C18] A. V. Papadopoulos, F. Casella, and A. Leva. "Model separability indices for efficient dynamic simulation". In: *Proceedings of the 19th IFAC World Congress*. Vol. 19. Cape Town, South Africa: IFAC, 2014, pp. 10796–10801. DOI: [10.3182/20140824-6-ZA-1003.01940](https://doi.org/10.3182/20140824-6-ZA-1003.01940).
- [C17] A. V. Papadopoulos and M. Prandini. "Model reduction of switched affine systems: a method based on balanced truncation and randomized optimization". In: *Proceedings of the 17th International Conference on Hybrid Systems: Computation and Control*. HSCC '14. Berlin, Germany: ACM, 2014, pp. 113–122. DOI: [10.1145/2562059.2562131](https://doi.org/10.1145/2562059.2562131).
- [C16] F. Terraneo, L. Rinaldi, M. Maggio, A. V. Papadopoulos, and A. Leva. "FLOPSYNC-2: efficient monotonic clock synchronisation". In: *Proceedings of the 35th IEEE Real-Time Systems Symposium*. RTSS. Rome, Italy: IEEE, 2014, pp. 11–20. DOI: [10.1109/RTSS.2014.14](https://doi.org/10.1109/RTSS.2014.14).
- [C15] A. Leva and A. V. Papadopoulos. "Teaching a conscious use of PI/PID tuning rules". In: *10th IFAC Symposium on Advances in Control Education (ACE)*. Vol. 10. Sheffield, UK: IFAC, 2013, pp. 25–30. DOI: [10.3182/20130828-3-UK-2039.00052](https://doi.org/10.3182/20130828-3-UK-2039.00052).
- [C14] A. Leva, A. V. Papadopoulos, and M. Maggio. "A general control-theoretical methodology for runtime resource allocation in computing systems". In: *Decision and Control (CDC), 2013 IEEE 52nd Annual Conference on*. Florence, Italy: IEEE, 2013, pp. 3487–3492. DOI: [10.1109/CDC.2013.6760418](https://doi.org/10.1109/CDC.2013.6760418).
- [C13] A. V. Papadopoulos, J. Åkesson, F. Casella, and A. Leva. "Automatic Partitioning and Simulation of Weakly Coupled Systems". In: *Decision and Control (CDC), 2013 IEEE 52nd Annual Conference on*. Florence, Italy: IEEE, 2013, pp. 3172–3177. DOI: [10.1109/CDC.2013.6760367](https://doi.org/10.1109/CDC.2013.6760367).
- [C12] A. V. Papadopoulos, L. Bascetta, and G. Ferretti. "Generation of Human Walking Paths". In: *Intelligent Robots and Systems (IROS), 2013 IEEE/RSJ International Conference on*. Tokyo, Japan: IEEE, 2013, pp. 1676–1681. DOI: [10.1109/IROS.2013.6696574](https://doi.org/10.1109/IROS.2013.6696574).
- [C11] A. V. Papadopoulos and A. Leva. "Automating Dynamic Decoupling in Object-Oriented Modelling and Simulation Tools". In: *5th International workshop on Equation-Based Object-Oriented Modeling Languages and Tools (EOOLT)*. Nottingham, UK, 2013, pp. 37–44.
- [C10] A. V. Papadopoulos and A. Leva. "Laboratories over the network: from remote to mobile". In: *10th IFAC Symposium on Advances in Control Education (ACE)*. Vol. 10. Sheffield, UK: IFAC, 2013, pp. 84–89. DOI: [10.3182/20130828-3-UK-2039.00051](https://doi.org/10.3182/20130828-3-UK-2039.00051).
- [C9] M. Maggio, A. V. Papadopoulos, and A. Leva. "SMART Computing Systems: Sensing, Modelling, Actuating, Regulating, and Tuning". In: *Proceedings of the 7th International Workshop on Feedback Computing*. San Jose, CA, USA, 2012.
- [C8] M. Maggio, F. Terraneo, A. V. Papadopoulos, and A. Leva. "A PI-based control structure as an operating system scheduler". In: *Proceedings IFAC Conference on Advances in PID Control*. Vol. 2. Brescia, Italy: IFAC, 2012, pp. 329–334. DOI: [10-3182/20120328-3-IT-3014.00056](https://doi.org/10-3182/20120328-3-IT-3014.00056).
- [C7] A. V. Papadopoulos and A. Leva. "Antiwindup-aware PI autotuning". In: *Proceedings IFAC Conference on Advances in PID Control*. Vol. 2. Brescia, Italy: IFAC, 2012, pp. 554–559. DOI: [10-3182/20120328-3-IT-3014.00094](https://doi.org/10-3182/20120328-3-IT-3014.00094).
- [C6] A. V. Papadopoulos, M. Maggio, F. Casella, and J. Åkesson. "Function inlining in Modelica models". In: *Proceedings of the 7th International Conference of Mathematical Modelling, MATHMOD'12*. Vol. 7. Vienna, Austria: IFAC, 2012, pp. 1091–1094. DOI: [10.3182/20120215-3-AT-3016.00193](https://doi.org/10.3182/20120215-3-AT-3016.00193).
- [C5] A. V. Papadopoulos, M. Maggio, and A. Leva. "Control and design of computing systems: what to model and how". In: *Proceedings of the 7th International Conference of Mathematical Modelling, MATHMOD'12*. Vol. 7. Vienna, Austria: IFAC, 2012, pp. 102–107. DOI: [10.3182/20120215-3-AT-3016.00018](https://doi.org/10.3182/20120215-3-AT-3016.00018).
- [C4] P. Cremonesi, F. Garzotto, S. Negro, A. V. Papadopoulos, and R. Turrin. "Comparative evaluation of recommender system quality". In: *CHI EA '11: Proceedings of the 2011 annual conference extended abstracts on Human factors in computing systems*. Vancouver, BC, Canada: ACM, 2011, pp. 1927–1932. DOI: [10.1145/1979742.1979896](https://doi.org/10.1145/1979742.1979896).
- [C3] P. Cremonesi, F. Garzotto, S. Negro, A. V. Papadopoulos, and R. Turrin. "Looking for "Good" Recommendations: A Comparative Evaluation of Recommender Systems". In: *INTERACT'11: Proceedings of the 13th IFIP TC 13 international conference on Human-computer interaction*. Ed. by P. Campos, N. Graham, J. Jorge, N. Nunes, P. Palanque, and M. Winckler. Vol. 6948. Lecture Notes in Computer

Science. Lisbon, Portugal: Springer-Verlag, 2011, pp. 152–168. DOI: [10.1007/978-3-642-23765-2_11](https://doi.org/10.1007/978-3-642-23765-2_11).

- [C2] A. V. Papadopoulos, M. Maggio, S. Negro, and A. Leva. “Enhancing feedback process scheduling via a predictive control approach”. In: *Proceedings of the 18th IFAC World Congress*. Vol. 18. Milan, Italy: IFAC, 2011, pp. 13522–13527. DOI: [10.3182/20110828-6-IT-1002.01156](https://doi.org/10.3182/20110828-6-IT-1002.01156).
- [C1] A. Leva, S. Negro, and A. V. Papadopoulos. “PI(D) Tuning with Contextual Model Identification”. In: *Proceedings of the European Control Conference (ECC ’09)*. Budapest, Hungary, 2009, pp. 4013–4018.

Submitted to International Journals

- [SJ4] A. Filieri, M. Maggio, K. Angelopoulos, N. D’Ippolito, I. Gerostathopoulos, A. B. Hempel, H. Hoffmann, P. Jamshidi, E. Kalyvianaki, C. Klein, F. Krikava, S. Misailovic, A. V. Papadopoulos, S. Ray, A. M. Sharifloo, S. Shevtsov, M. Ujma, and T. Vogel. “Control Strategies for Self-Adaptive Software Systems”. In: *ACM Transactions on Autonomous and Adaptive Systems* (2015). (submitted under review).
- [SJ3] A. V. Papadopoulos, A. Ali-Eldin, K.-E. Årzén, J. Tordsson, and E. Elmroth. “PEAS: A Performance Evaluation Framework for Auto-Scaling Strategies in Cloud Applications”. In: *ACM Transactions on Modeling and Performance Evaluation of Computing Systems (TOMPECS)* (2015). (submitted under review).
- [SJ2] A. V. Papadopoulos, C. Klein, M. Maggio, J. Dürango, M. Dellkrantz, F. Hernández-Rodriguez, E. Elmroth, and K.-E. Årzén. “Control-Based Load-Balancing Techniques: Analysis and Performance Evaluation via a Randomized Optimization Approach”. In: *Control Engineering Practice* (2015). (submitted under review).
- [SJ1] A. V. Papadopoulos and M. Prandini. “Model reduction of switched affine systems”. In: *Automatica* (2015). (submitted under review).

Submitted to International Conferences

- [SC1] A. Ali-Eldin, A. Ilyushkin, B. Ghit, N. Herbst, A. V. Papadopoulos, and A. Iosup. “Benchmarking Auto-Scaling Algorithms”. In: *7th ACM/SPEC International Conference on Performance Engineering (Demos and Posters)*. ICPE. (submitted under review). 2016.

DOCTORAL COURSES

- *Communicating Science (GB_S11)* (passed), Prof. A. Ahlberg, Prof. J. Löfgreen, Lund University, Lund, Sweden, Jun 2015.
- *Introduction to Teaching and Learning in Higher Education (BG_A01)* (passed), Prof. A. Ahlberg, Prof. R. Andersson, Prof. J. Löfgreen, Lund University, Lund, Sweden, Jan 2015.
- *Control of Robots*, Prof. L. Bascetta and Prof. P. Rocco, Politecnico di Milano, Milan, Italy, Jul 2013.
- *Information Theory* (Mark: 30/30), Prof. G. Como, Lund University, Lund, Sweden, Sep 2012.
- *Paradigmatic Models in Social Sciences* (Mark: 30/30 cum laude), Prof. S. Rinaldi, Prof. M. Scheffer, Prof. R. Casagrandi, Prof. F. Dercole, Prof. A. Colombo, Prof. K. Sigmund, Prof. C. Piccardi, and Prof. L. Tajoli, Politecnico di Milano, Milan, Italy, May 2012.
- *Active Noise Control*, Prof. L. Piroddi, Politecnico di Milano, Milan, Italy, Jan 2012.
- *Object-oriented modelling and simulation* (Mark: 30/30 cum laude), Prof. F. Casella, Politecnico di Milano, Milan, Italy, Nov 2011.
- *Analysis of Innovation and Competition Processes* (Mark: 30/30 cum laude), Prof. F. Dercole, Politecnico di Milano, Milan, Italy, Sep 2011.
- *Hybrid Systems* (Mark: 30/30 cum laude), Prof. M. Prandini, Prof. J. Lygeros, Politecnico di Milano, Milan, Italy, Jun 2011.

- *Model Predictive Control* (Mark: 30/30), Prof. J. Maciejowski, Politecnico di Milano, Milan, Italy, Jun 2011.
- *Associate Project Manager Certificate* (Mark: 30/30 cum laude), Prof. Donatella Sciuto, CEFRIEL, Milan, Italy, Feb 2011.

COMPUTER SKILLS

OS	Linux, MacOS X™, Microsoft™operating systems.
Languages	C, Python, Java, Bash scripting, XML, XSD, (X)HTML, CSS, L ^A T _E X, SQL, XPath, XQuery, OWL 2.
Scientific Languages & Tools	Matlab™, Scilab, Modelica, R, NI LabVIEW, Maxima, Maple, Mathematica, AMPL, UML 2.0.
Technologies	Android, Arduino, Assimulo, IOIO OTG, MySQL, NumPy, SciPy.
IDE and Editors	Dymola, Eclipse, Netbeans, XCode, Protégé, Microsoft Office™and other office packages, Ms Visio™, Omnigraffle.

MORE

Associations	IEEE Member (from 2012), IEEE Control Systems Society Member (from 2012), IEEE Computer Society Technical Committee on Real-Time Systems (from 2016), Member of the Lund Center for Control of Complex Engineering Systems (LCCC), Lund, Sweden (from 2014)
Interests	technology, mathematics, economics, travelling.
Sports	running, judo, volleyball, official volleyball referee for the Italian Federation Volleyball (FIPAV).
Hobbies	photography, music, arts, literature, archaeology.
Musical Instruments	guitar.

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